702 KAR 4:170. Facility Programming and Construction Criteria Planning Guide

RELATES TO: KRS 156.031, 156.070, 156.160, 162.060

STATUTORY AUTHORITY: KRS 156.070, 156.160, 162.060

NECESSITY, FUNCTION, AND CONFORMITY: KRS 156.160 requires the State Board for Elementary and Secondary Education to adopt rules and administrative regulations relating to sanitary and protective construction of public school buildings, toilets, physical equipment of school grounds, and school buildings and classrooms. KRS 162.060 requires approval of all plans and specifications for school building construction by the chief state school officer, in accordance with the rules and administrative regulations of the state board. This administrative regulation implements these statutory duties by prescribing various architectural, structural, mechanical, electrical, sanitary, heating and ventilation design specifications to ensure functional, safe and economical operation of the proposed educational facility, and to provide for a healthy and comfortable space for learning. The minimum standards stated in this administrative regulation shall be incorporated into the design of each new school building. Additionally, this administrative regulation repeals and replaces three (3) administrative regulations relating to school district facilities.

Section 1. The "Facility Programming and Construction Criteria Planning Guide", dated July,1994, is hereby adopted and incorporated by reference. A copy of this planning guide may be photocopied, reviewed and obtained from the Division of Facilities Management, Kentucky Department of Education, 15th Floor, Capital Plaza Tower, 500 Mero Street, Frankfort, Kentucky 40601, Monday through Friday, 8:30 a.m. to 4:30 p.m. (21 Ky.R. 1808; eff. 3-2-95.)

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INTRODUCTION

In order to completely implement the educational changes of the "Kentucky Education Reform Act" (KERA), and to respond to the concerns of those involved in providing instructional space, the entire process of school facility planning, design and construction has come under close scrutiny. Greater oversight of this process began with the revisions to the facility survey program in the Kentucky School Facilities Planning Manual (702 KAR 1:001). With the recent adoption of Capital Construction Process (702 KAR 4:160), the responsibilities of local school boards, architects and construction managers are given more definition. Now, a review of the existing administrative regulations covering school facility construction details and this proposed revision, Facility Programming and Construction Criteria (702 KAR 4:170), conclude the overhaul of the process.

Simultaneously, a reduction in the quantity of regulations has become a priority. 702 KAR 4:160, and this proposed revision 702 KAR 4:170, are consolidations of existing administrative regulations. With the adoption of 702 KAR 4:170, three existing regulations:

* 702 KAR 4:060, Construction criteria, * 702 KAR 4:070, Mechanical, electrical, sanitary, heating and ventilation design, and * 702 KAR 4:080, Temporary or supplemental units, are

repealed and replaced by the programming and construction criteria document. The new administrative regulation has been reduced to the bare essentials. In order to maintain the current minimum standards for construction and provide the desirable improvements to accommodate KERA, this administrative regulation incorporates through reference a new document, the "Facility Programming and Construction Criteria Planning Guide". This guide has several important features:

- * Through the adoption of 702 KAR 4:170, the minimum areas for the program spaces identified in Kentucky School Facilities Planning Manual for planning and funding purposes, are required to be constructed at those sizes. These minimum areas include space for computers. Without this administrative regulation, the smaller pre-KERA instructional spaces might still be built.
- * The new Planning Guide lists the minimum standards for each individual instructional space. This allows the characteristics of each space to be customized in order to provide the precise learning environment. Kentucky Department of Education curriculum program consultants have provided input to bring the instructional space requirements into agreement with the current KERA curriculum needs. Most notably, this has resulted in the integration of computers and technology in the construction of instructional spaces.
- * Architects and engineers experienced in school facility design were asked to review the proposed administrative regulation to provide input on the latest industry standards. Outdated provisions were discarded and new provisions reference current construction techniques.

Adoption of this administrative regulation, 702 KAR 4:170 Facility Programming and Construction Criteria, enhances the Kentucky Department of Education's ability to provide the local school district with a more complete guide to the physical learning environment. It will also guarantee a level of uniformity through the requirement of minimum standards for all instructional spaces across the state. Finally, it will accomplish the original objectives of completing the overhaul of the school facility construction process, and of consolidating the regulatory effort into a more usable instrument.

PART 1. DEFINITIONS:

1. "Assignable Space" means the net area in square feet of the sum of all individual program spaces. This sum is approximately equal to the following percentage of the gross building area:

- /4% for Elementary schools; /1% for Middle and Junior High schools; and 68% for High schools.
- 2. "ETV" means Educational Television.
- 3. "Equipment" means fixed or moveable furnishings required to support the instructional needs of the space.
- 4. "Footcandles" or "fc" means the amount of artificial illumination at 30 inches above the floor (desktop height) as measured with a standard light meter. The amounts given in the following provisions indicate the minimum average "maintained" value required throughout the entire space. For light fixtures with fluorescent or metal halide lamps, the "depreciation factor" equals: 20% for fluorescent; and 40% for metal halide.
- 5. "KBC" means the Kentucky Building Code.
- 6. "KDE" means the Kentucky Department of Education.
- 7. "KETS" means the Kentucky Education Technology System.
- 8. "LF" means Linear Feet.
- 9. "Minimum Unit Area" means the net area of a program space excluding walls. An exemption to the provision of the Minimum Unit Area may be granted when multiple program spaces are planned to share common Support Spaces (e.g. two or more Lecture Labs sharing common Workroom and Chemical/Equipment Storage room).
- 10. Minimum "Room Dimension" means the minimum clear distance between face of wall and face of wall, or face of fixed equipment.
- 11. "SF" means Square Feet.
- 12. "Student Enrollment" means the total anticipated student attendance rounded to the next highest fifty (50) or one hundred (100) students as given by the table, without interpolation of smaller increments.
- 13. "Technology" means the provision of the integrated communications network as defined by the Kentucky Education Technology System.
- 14. "Unassignable Space" means the amount of area in square feet remaining when the "assignable space" is subtracted from the total gross area of the building. This amount is approximately equal to the following percentage of the gross building area: 26% for Elementary schools; 29% for Middle and Junior High schools; and 32% for High schools. (Refer to the School Facilities Manual 702 KAR 1:001).
- 15. "Units/Student Ratio" means the number of program space units (see Minimum Unit Area) to be provided for each quantity of students indicated. For standard classrooms the ratio is expressed as one classroom unit for the quantity indicated based on the total school enrollment. For all other instructional spaces the ratio is expressed as one unit for the quantity indicated, based on the total student enrollment in that program (e.g. Science, Art, etc.).
- ?? * PART 2. PROGRAMMING: a. SITE PLAN: Efficient use of school property, vehicular and pedestrian circulation and student safety shall be accommodated through conformance with the following:
- a.1) Separate the bus loading/unloading driveway from all other vehicular circulation on the site. Prohibit access to the bus loading/unloading drive-way through the use of signage marking "Busses Only" entry and "No Entry" at the appro-priate ends of the bus loop.
 a.2) A curb cut with ramp for the physically disabled shall be provided at the appropriate location to serve the parking spaces for the disabled, and at the bus loading/unloading area.

- a.3) Provide positive drainage away from building and eliminate all conditions which would produce standing water through the use of area drains and subsurface drainage systems.
- a.4) Locate site utilities, and physical plant components such as sewage treatment plants and trans-former pads, to avoid conflict with student and vehicular traffic, future growth of play areas, drive-ways, building expansions, etc.
- a.5) Electrical service entrance lines to school buildings shall be remotely located from student traffic lanes and areas planned for outside activities.
- a.6) Provide adequate site lighting for night-time hours: around building at each exterior door for security; and at all driveway intersections and bus loop for safe emergency vehicle access.
- a.7) For buildings utilizing LP gas, the storage tanks shall be enclosed with a chain link fence.
- a.8) A sewage treatment plant located on the school site shall be enclosed with a fence and provided with a water supply line with frostproof hydrant.
- a.9) At storm sewer outlets and headwalls, utilizing pipe eight (8) inches in diameter or larger, provide steel grate guards to prevent obstructions. Rip-rap is required to prevent erosion.
- a.10) Provide sub-surface drainage piping to divert roof run-off from building downspouts away from or under paved pedestrian or vehicular traffic areas.
- a.11) Locate school facilities at least two hundred (200) feet away from any source of air or water contamination and high-pressure gas lines.
- a.12) A geo-technical survey is required of all sites of new school facilities and of all school facility additions greater than two classrooms.
- a.13) Each school facility site shall be provided with an outdoor physical education area equivalent in size and graded similar to a soccer field.
- a.14) All playground equipment provided on school sites shall conform to the provisions of the "Handbook for Public Playground Safety", as published by the U.S. Consumers Products Safety Commission. This handbook is hereby adopted and incorporated by reference and may be copied (subject to copyright restrictions) and reviewed at the Division of Facilities Management, Department of Education, 15th Floor, Capital Plaza Tower, Frankfort, Kentucky 40601. The supplier/installer shall provide the Owner with a certificate of compliance with these standards.
- a.15) The finished floor elevation of any portion of new building or addition must a minimum of twelve (12) inches above the 100-year flood plain.
- b. ASSIGNABLE SPACE: b.1. STANDARD CLASSROOM UNITS shall be provided in accordance with the following table:

STANDARD CLASSROOM UNITS Grade Level Minimum Unit Area(Square Feet)
Unit/Student Ratio Elementary 800 1/25 Middle/Junior High 750 1/25 for 75% of school enrollment High 750

b.1.1) Location: Shielded from noise-producing activities or functions. b.1.2) Support Spaces: Internal subdivisions are not required. b.1.3) The Minimum Standards as given by the following table shall be provided in each standard classroom unit:

b. ASSIGNABLE SPACE:

b.1. STANDARD CLASSROOM UNITS shall be provided in accordance with the following table:

STANDARD CLASSROOM UNITS

Grade Level	Minimum Unit Area(Square Feet)	Unit/Student Ratio
Elementary	800	1/25
Middle/Junior High	750	1/25 for 75% of school enrollment
High	750	

b.1.1) Location: Shielded from noise-producing activities or functions.

b.1.3) The Minimum Standards as given by the following table shall be provided in each standard classroom unit:

MINIMUM CLASSROOM STANDARDS

Standard	Minimum
Student Capacity	Varies
Ceiling Height	8'-8"
Room Dimension	22'-0" Clearb
Artificial Illumination	50 footcandles
Chalkboard/Markerboard	48 square feet
Tackboard	48 square feet
Finishes	Low maintenance
	Elementary: 15 square feet for children's clothing and personal items;
Storage	Middle, Jr. High & High: Provide one 12"x12"x36" locker for the maximum student

b.1.2) Support Spaces: Internal subdivisions are not required.

	enrollment, outside the classroom space
	All grades: storage space for teaching materials and records ^c
	Voice, data and video outlets at (1) teacher
	station; Data outlet at each student station per
	KETS Standards; Power outlets at each
Technology	computer and video outlet
Equipment	
Utilities	-
Special Features	

Notes:

- (a) Where clusters of three or more open classrooms are to be utilized for a "family concept" instructional area, provide space for a corridor with walls to meet the requirements of means of egress.
- (b) The minimum clear dimension shall not include casework or other fixed equipment.
- (c) Storage space for teaching materials and records may be provided in casework included within the classroom area. Where storage closets are provided, the area of the closet shall not be included within the minimum unit area of the classroom.
- b.2. RESOURCE CLASSROOM UNITS shall be provided in accordance with the following table:

RESOURCE CLASSROOM UNITS

Grade Level	Minimum Unit Area (Square Feet)	Unit/Student Ratio
Elementary	400	Per program
Middle/Junior High	375	Per program
High	375	Per program

- b.2.1) Location: Shielded from noise-producing activities or functions.
- $\hbox{b.2.2) \underline{Support Spaces: Internal subdivisions are not required.}\\$
- b.2.3) The Minimum Standards as given by the following table shall be provided in each resource classroom unit:

MINIMUM RESOURCE CLASSROOM STANDARDS

Standard	Minimum
Student Capacity	Varies (Maximum = 12)
Ceiling Height	8'-8"
Room Dimension	11'-0"
Artificial Illumination	50 footcandles

Chalkboard/Markerboard	24 square feet	
Tackboard	24 square feet	
Finishes	Low maintenance	
Storage	Storage space for teaching materials and records	
Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet	
Equipment		
Utilities		
Special Features	-	
Notes: (a) Where two Resource Rooms are divided by a folding partition, each room must have its own door to the corridor, separate ight switching and control of heating and air-conditioning.		

b.3. PRE-SCHOOL CLASSROOM UNITS shall be provided in accordance with the following table:

Grade Level	Minimum Unit Area(Square Feet)	Units/Student Ratio
Pre-school	825	1/20

- b.3.1) <u>Location</u>: On the ground floor shielded from noise-producing activities or functions. Provide access to a fenced play area (See b.3.3 below). At some school facilities, direct access from the Preschool Classrooms to the Family Resources Area may be required.
- b.3.2) Support Spaces: The Minimum Pre-school Classroom Unit Area shall be internally subdivided to provide the following support spaces:

PRE-SCHOOL CLASSROOM SUPPORT SPACES

Room Name	Minimum Area(Square Feet)	Special Features
Wet Area	15	Separate vanity/sink with bubbler or cup-filler within the classroom space
Toilet Room	25	One uni-sex toilet room with door connected directly to classroom; Operate toilet room light fixture from switch with pilot light in classroom
Storage	50	Lockable storage for large play equipment

b.3.3) The Minimum Standards as given by the following table shall be provided in each pre-school classroom unit:

MINIMUM PRE-SCHOOL CLASSROOM STANDARDS

Standard	Minimum
Student Capacity	20
Ceiling Height	8'-8"
Room Dimension	22'-0"
Artificial Illumination	75 footcandles
Chalkboard/Markerboard	48 square feet
Tackboard	48 square feet
Finishes	Low maintenance; water-resistant flooring at wet area & toilet room
Storage	15 square feet for children's clothing and personal items; storage space for teaching materials and records
Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet
Equipment	
Utilities	
Special Features	Direct access to a minimum 1500 square feet outdoor play area, 1/3 paved, 2/3 turf, with 48-inch high fence and (two) 36-inch wide latchable gates

b.4. FMD CLASSROOM UNITS shall be provided in accordance with the following table:

FMD CLASSROOM UNITS

Grade Level	Minimum Unit Area (square Feet)	Unit/Student Ratio

FMD	825	Varies per program	Î

- b.4.1) Location: Shielded from noise-producing areas.
- b.4.2) Support Spaces: The Minimum FMD Classroom Unit Area shall be internally subdivided to provide the following support spaces:

FMD CLASSROOM SUPPORT SPACES

Grade Level	Support Space Room Name	Minimum Area(square Feet)	Special Features
All	Handicapped Toilet Room	80	Private restroom with a handicapped water closet, lavatory, roll- in shower and changing table
High School	Kitchenette	20 (within Classroom)	Provide a Kitchenette, including a sink, a refrigerator and microwave oven, for food preparation training

b.4.3) The Minimum Standards as given by the following table shall be provided in each FMD classroom unit:

MINIMUM FMD CLASSROOM STANDARDS

Standard	Minimum
Student Capacity	Varies per program
Room Dimension	22'-0"
Artificial Illumination	50 footcandles
Chalkboard/Markerboard	48 square feet
Tackboard	48 square feet
Finishes	Low maintenance; water-resistant flooring at kitchenette & toilet room
Storage	15 square feet for children's clothing and personal items; storage space for teaching materials and records
Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet
Equipment	
Utilities	For middle and high schools provide utilities for a unit kitchen
Special Features	

b.5. SCIENCE CLASSROOM and LECTURE LAB UNITS shall be provided in accordance with the following table:

SCIENCE CLASSROOM and LECTURE LAB UNITS

Grade Level	Minimum Unit Area (Square Feet)	Units/Student Ratio
Grades 5 & 6 Science Classrooms	800	No requirement
Middle, Junior High & High School Science Classrooms	1000	1/150
High School Lecture Lab	1625	1/150 or one per each six periods of Chemistry and Physics

- b.5.1) Location: Shielded from noise-producing activities or functions.
- $b.5.2) \ \underline{\text{Support Spaces}}. \ \text{The Minimum Science Classroom Unit Area shall be internally subdivided to provide the following support spaces:}$

SCIENCE CLASSROOM/LECTURE LAB SUPPORT SPACES

Science Classroom Area	Support Space Room Name	Minimum Area (Square Feet)	Special Features
Science Classrooms 1000 SF and greater	9	100	For general science storage only; Chemical storage is prohibited here and in science classroom;
1625 SF	orkroom	200	Workroom and Chemical/Equipment Storage Room shall be ventilated per National Fire Protection Association-NFPA 30;

Science Lecture Labs			Provide outswinging doors with panic hardware from chemical storage and workrooms
	Chemical/ Equipment Storage	100	

b.5.3) The Minimum Standards as given by the following table shall be provided in each science classroom unit:

MINIMUM SCIENCE CLASSROOM & LECTURE LAB STANDARDS

Standard	Minimum			
	Grades 5 & 6 Science	Grades 7 & 8, High School Science Classroom	Lecture Lab	
Student Capacity		28		
Ceiling Height		8'-8"	8'-8"	
Room Dimension		22'-0"		22'-0"
Artificial Illumination		50 footcandles		75 fc
Chalkboard/		48 square feet		48 sf
Markerboard		10 5 1		40. 6
Tackboard	<u> </u>	48 square feet		48 sf
Finishes	Low maintenance	Low maintenance; Chemical-resistant where applicable	Chemical-resistant where applicable	
Storage	Storage space for teaching materials and records	Storage space for teaching materials and records; See b.5.2	Storage space for teaching materials and records; See b.5.2	
Technology		outlets at (1) teacher station; Data outlet at endards; Power outlets at each computer and	•	
Equipment	Demonstration table with Hot and Cold Water	Demonstration table with Hot and Cold Water; Casework with three (3) sinks minimum, cold water only; one additional sink with drainboard with hot and cold water	Demonstration table with Gas and Hot & Cold Water; Fume hood; Casework with seven (7) sinks, cold water only seven (7) gas jets; one additional sink with drainboard with hot and cold water	
Utilities		Solenoid-type emergency "kill" switches on gas & electric services to room; shut-off valve on water service to room; acid waste lines at demonstration table only (to dilution pit)	Solenoid-type emergency "kill" switches on gas & electric services to room; shut-off valve on water service to room; acid waste lines in all casework (to dilution pit)	
Special Features		Doors swing into corridor; Seating at two- student tables; Include safety cabinet,	Doors swing into corridor; Include	

	goggles, eyewash, emergency shower	safety cabinet, goggles, eyewash, emergency shower	
Notes:			
(a) The Kentucky Department of Educatio	on does not endorse the use of acids or flammable chemicals by s	students in grade	
levels or science classrooms other than F	ligh School laboratories.		
(b) Provide a floor drain with trap at each	emergency shower.		

b.6. COMPUTER CLASSROOMS UNITS shall be provided in accordance with the following table:

STANDARD COMPUTER CLASSROOM UNITS

Grade Level	Minimum Unit Area (Square Feet)	Units/Student Ratio
Elementary	800	One per school
Middle/Junior High	900	1/150
High	1280	1/150

- $\hbox{b.6.1)}\ \underline{\hbox{Location}}; \hbox{Shielded from noise-producing activities or functions}.$
- $\hbox{b.6.2) $\underline{$Support Spaces$}$: Internal subdivisions are not required.}$
- $b.6.3)\ The\ \underline{\text{Minimum Standards}}\ as\ given\ by\ the\ following\ table\ shall\ be\ provided\ in\ each\ standard\ computer\ classroom\ unit:$

MINIMUM COMPUTER CLASSROOM STANDARDS

Standard	Minimum
Student Capacity	28 Maximum
Ceiling Height	88
Room Dimension	22'-0"
Artificial Illumination	Two-level with 50 footcandles maximum; reduce veiling effects on CRT screens
Chalkboard/Markerboard	48 square feet of Markerboard
Tackboard	48 square feet
Finishes	Low maintenance
Storage	Storage space for teaching materials and records
Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet
Equipment	
Utilities	Provide surge protection at circuit-breaker panel in each classroom for in-coming power; all electrical connections for computers shall be above countertop height, either along the wall, or by means of a floor pedestal
Special Features	

b.7. ART CLASSROOM UNITS shall be provided in accordance with the following table:

STANDARD ART CLASSROOM UNITS

Grade Level	Minimum Unit Area (Square Feet)	Units/Student Ratio
Elementary	800	One per school

Middle/Junior High	1200	1/150
High	1200	1/150

b.7.1) Location: On ground floor at north exterior wall for direct access to a future art patio.

ART CLASSROOM SUPPORT SPACES

Grade Level	Support SpaceRoom Name	Minimum Area (Square Feet)	Special Features
Middle, Jr. High & High School	Art Office/ Storage Room	200	Lockable storage for supplies and projects

 $b.7.3)\ The\ \underline{\textit{Minimum Standards}}\ as\ given\ by\ the\ following\ table\ shall\ be\ provided\ in\ each\ standard\ art\ classroom\ unit:$

MINIMUM ART CLASSROOM STANDARDS

Standard	Minimum		
	Elementary	Middle/High	
Student Capacity			
Ceiling Height	8'-8"	8'-8"	
Room Dimension	22'-0"	22'-0"	
Artificial Illumination	100 footcandles	100 footcandles	
Chalkboard/Markerboard	48 square feet	48 square feet	
Tackboard	48 square feet, with 24 LF of tackstrip	48 square feet, with 48 LF of tackstrip	
Finishes	Low maintenance	Low maintenance	
Storage	Storage space for teaching materials, records, art supplies and projects	See b.7.2	
Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet		
Equipment			
Utilities	24"x20"x12" Sink with plaster trap	24"x20"x12" Sink with plaster trap; connections for future kiln with exhaust hood vented directly to the exterior	
Special Features	Windows in the art room must conform to the window regulation.		

 $b.8. \ MUSIC \ CLASSROOM \ UNITS \ shall \ be \ provided \ in \ accordance \ with \ the \ following \ table:$

STANDARD MUSIC CLASSROOM UNITS

r			
Grade Level	Minimum Unit Area (Square Feet)	Units/Student Ratio	
Elementary Music	800	One per school	
Chorus Room Middle/Junior High/High	900	Per program	

 $b.7.2) \ \underline{\text{Support Spaces:}} \ \text{The Minimum Art Classroom Unit Area shall be internally subdivided to provide the following support spaces:}$

Band/Vocal Room	2500	Per program		
Band Room High	2500	Per program		

b.8.1) Location:

- * All music rooms shall be located remotely from other classrooms to minimize sound transmission.
- * High school band rooms shall be located on the ground floor, remote from other classrooms so as to provide access directly to the exterior through a door no less than forty-four (44) inches wide.
- b.8.2) Support Spaces: The Minimum Music Classroom Unit Area shall be internally subdivided to provide the following support spaces:

MUSIC CLASSROOM SUPPORT SPACES

Grade Level	Support Space Room Name	Minimum Area (Square Feet)	Special Features	
Chorus Room	Robe Storage	100	Provide appropriate hanging storage	
Band/Vocal andHigh School Band Rooms	Instructor Office	200	Locate at entry to band room with view window; provide a small storage area for a sheet music library	
	Instrument Storage	300	Provide a long room with full length shelving, an entry door at one end and an exit door at the other (each door no less than forty-four (44) inches wide)	
	Band Uniform Storage	200	Provide appropriate hanging storage	

b.8.3) The Minimum Standards as given by the following table shall be provided in each music room unit:

MINIMUM MUSIC ROOM STANDARDS

Standard	Minimum				
	Elementary Music Middle/High Chorus Room		Band/Vocal & Band Room		
Ceiling Height	8'-8"	10'-0"	12'-0"		
Room Dimension	22'-0"	22'-0"	22'-0"		
Artificial Illumination	0 footcandles	75 footcandles	75 footcandles		
Chalkboard/Markerboard	48 square feet	48 square feet	48 square feet		
Tackboard	48 square feet 48 square feet		48 square feet		
Finishes	Low maintenance, acoustically absorbent	Low maintenance, acoustically absorbent	Low maintenance, acoustically absorbent		
Storage	Storage space for teaching materials and records	Storage space for teaching materials and records	See b.8.2		
Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet				
Equipment			-		
Utilities	-		Provide an air- conditioning system for the band room for		

			summer use		
		Minimum STC-rating of	Minimum STC-rating of 55 between itself and the		
		55 between this space	adjacent spaces; Doors shall have acoustical		
		and the adjacent	gaskets, door bottoms and have a minimum STC-		
		spaces; Doors shall	rating of 34; Risers in the Chorus or Band Rooms		
	Special Features	have acoustical gaskets	should not be of permanent construction (Portable		
		and door bottoms and	risers are acceptable); Practice rooms, if provided		
		have a minimum STC-	shall be constructed of metal studs and gypsum		
		rating of 34	board for easy removal in the future		

b.9. LIBRARY/MEDIA CENTERS shall be provided in accordance with the following table:

LIBRARY/MEDIA CENTER UNITS

Total Student Enrollment	Library/Media Center Unit Area (Square Feet)	
300	2,100	
400	2,600	
500	3,125	
600	3,650	
700	4,175	
800	4,700	
900	5,225	
1,000	5,720	
1,100	6,275	
1,200	6,800	
1,300	7,325	
1,400	7,850	
1,500	8,375	

b.9.1) <u>Location</u>: The Library/Media Center shall be centrally located to access all grade levels of the building. b.9.2) <u>Support Spaces</u>: The Minimum Library/Media Center Unit Area shall be internally subdivided to provide the following support spaces:

LIBRARY/MEDIA CENTER SUPPORT SPACES

Grade Level Support Space Room Nam		Minimum Area (Square Feet)	Special Features		
Elementary	Workroom	200	Base cabinet with sink		
	Audio-Visual Storage	200	Entrance to the Audio-visual Storage Room should be controlled by the Librarian; Exit door to a corridor should have "exit only" hardware		
Middle, Jr. High & High	Office/ Workroom	250	Base cabinet with sink		
	Audio-Visual Storage	250	Entrance to the Audio-visual Storage Room should be controlled by the Librarian; Exit door to a corridor should have "exit only" hardware		
Notes:					

- (a) The total area allotted to the required Support Spaces shall not exceed 30% of the total Library/Media Center Unit space.
- (b) In larger Library/Media Centers where Office and Workroom are separate spaces, provide an Office of 150 SF and Workroom of 200 SF minimum.
- (c) Provide a door between the Office/Workroom and the Audio-visual Storage Room in addition to doors into the main Library space.
- (d) Provide view windows and half-glass door between Workroom and Library, and Office and Library, for the visual control of circulation desk, main reading room and all exitways by the Librarian.

b.9.3) The Minimum Standards as given by the following table shall be provided in each standard Library/Media Center: MINIMUM LIBRARY/MEDIA CENTER STANDARDS

Standard	Minimum
Student Capacity	At least 70% of the Minimum Library/Media Center Unit Area shall be dedicated to Reading Room and general stack area; The Library layout shall include tables and chairs to seat no less than 60 students; Provide space for one class in the main Library seating area to view audio-visual presentations, with a projection screen, electrical outlets and the means to darken the space for slides, films or videos
Ceiling Height	10'-0"
Room Dimension	22'-0"
Artificial Illumination	75 footcandles Provide switching for all light fixtures from the circulation desk, except for a switch at the entry door to operate fixtures lighting the path to the desk, and providing a minimum of 20 footcandles of light
Chalkboard/Markerboard	N.A.
Tackboard	48 square feet
Finishes	Low maintenance
Storage	See b.9.2
Technology	Voice, data and video outlets at minimum two locations in Reading Room/Stack Area (one of these at the computerized card catalogue) and one location in Office/Workroom; Voice and data outlets at circulation desk; Data outlets at each student station; Power outlets at each computer and video outlet
Equipment	Provide an area in the Library for carrels and/or individual instruction equipment: computers, headsets, etc.
Utilities	Provide electrical outlets along the perimeter walls with pigtail to base of shelving units
Special Features	

Notes:

(a) The main student entrance to the Library/Media Center shall be through a door opening with a pair of doors minimum 3'-0" wide per leaf.

- (b) The Library layout should allow for maximum visual control by the librarian from the circulation desk/work area.
- (c) See PART 3.c WINDOWS, for the requirements for window openings in a Library/Media Center.
- (d) Provide an air-conditioning system for use of the Library in all seasons.

b.10. GYMNASIUMS shall be designed to conform to the following standards and shall have a minimum playing floor and total area based on the student enrollment as given by the following table:

School/Student Enrollment	Minimum Playing Floor Area (Square Feet)	Minimum Gymnasium Unit Area (Square Feet)	
Elementary	5,050	5,500	
Middle/450	8,175	10,375	
Middle/600	8,575	10,775	
Middle/750	9,175	11,975	
Middle/900	9,600	12,400	
High/750	10,600	14,400	
High/1,000	10,600	16,000	
High/1,500	11,700	17,100	

b.10.1) Location:

- * All gymnasiums shall be located on the ground floor, remote from classrooms to minimize sound transmission and in close proximity to the outdoor play area.
- * Locate in close proximity to the parking areas to reduce the movement of people through the building or along its perimeter to reduce vandalism.
- * The gymnasium playing floor, locker rooms and support spaces shall be located on the same level for accessibility by the physically disabled to these spaces from the main building and the exterior. If necessary, provide an elevator.
- b.10.2) Support Spaces: The Minimum Gymnasium Unit Area shall be internally subdivided to provide the following support spaces:

GYMNASIUM SUPPORT SPACES

Grade Level	Support Space Room Name	Minimum Area (Square Feet)	Special Features
Elementary	Coach/ Instructor Office ^a	150	Provide a private toilet and shower
All	P.E. Storage ^a	300	Where mezzanine is utilized, provide some storage space on this level
Grades 7 and above (One per sex)	Coach/ Instructor Office	150	Provide a private toilet and shower
	Locker Room	As required	Lockers based on 1/4 of the total school enrollment with 1/2 of this number for each sex; Provide (35- 50) 12"x36"x12" lockers and (210- 300) 12"x12"x12" lockers
	Toilet & Shower Room	As required	Minimum of five (5) shower heads in each shower area with modesty shielding for girls; Drying area with floor drain and towel hooks

High School	Training Room	As required	Accessible to both sexes; Provide		
			a sink, floor drain, space for a		
			30"x60" taping table and space		
			and connections for a whirlpool;		
			Provide a telephone outlet		
			Hookups for washer and dryer in		
	Laundry Room	As required	a space supervised from the		
			coach's office		
	Visiting Team Locker, Toilet/Shower Room (One per sex)	As required to suit maximum team size	Provide lockers and showers as noted above		

Notes:

- (a) All Support Spaces are to be provided within the Minimum Gymnasium Unit Area, except at elementary schools where these spaces are provided in addition to the minimum unit area.
- (b) Shower and toilet rooms shall have keyed light switches remote from wet areas.
- b.10.3) The Minimum Standards as given by the following table shall be provided in each gymnasium:

MINIMUM GYMNASIUM STANDARDS

Standard	Minimum				
	Elementary School	Middle/Jr High School	High School		
Student Capacity		ng for the entire student inctions and assemblies	•		
Ceiling Height/ Unobstructed clearance above basketball court	20'-0"	22'-0"	24'-0"		
Room Dimension	The minimum basketball court size shall be 42' x 74', with 6'-0" of space minimum along each side and 8'-0" of space minimum at each end, for clearance between court and wall	be 42' x The minimum basketball court sizes shall be 50'-0" x 84'-0" for competition and 45'-0" x 74'-0" for practice; Layout practice courts perpendicular to main court with three feet between; See the table above for Minimum Playing Floor Areasa			
Artificial Illumination		50 footcandles; Provide quartz re-strike switching on four light fixtures (located at each corner of the main court) for immediate illumination			
Chalkboard/Markerboard		N.A.			
Tackboard		N.A.			
Finishes	Low maintenance; Consider the acoustic qualities of materials for non- physical education use of space; basketball court floor to be wood or rubberized sports floor				
Storage	See Table at b.8.2				
Technology	Voice, data and video outlets at (1) teacher station; Power outlets at each computer and video outlet				_
Equipment			Main court goals to		

	have glass backboards with breakaway rims		
Utilities	Provide an air-conditioning system for summer use of the gymnasium; Mechanical units & ductwork shall be designed to reduce noise levels per ASHRAE & RC 35-40		
Special Features	Provide bullnose masonry units at all corners inside the gym; Provide acoustical materials at walls and ceilings to reduce noise for non-athletic functions		
Notes:			
(a) For High School the main court space shall be			
(b) Inserts in wood gymnasium floors for volleyball standards are prohibited. Inserts for scoreboard controls, electrical or public address system outlets may be utilized but shall be located off the court and within 3'-0" of the closed bleacher.			
(c) Provide protective cages on all thermostats, a			

b.11. TECHNOLOGY EDUCATION INSTRUCTIONAL UNITS shall be provided in accordance with the following table:

TECHNOLOGY EDUCATION INSTRUCTIONAL UNITS

Grade Level	Minimum Unit Area (Square Feet)	Unit/Student Ratio
Elementary	N.A.	N.A.
Middle/Junior High	2750	1/150
High	Modular = 2750	1/150
	Systems = 3400	
	Advanced = 2750	

- b.11.1) Location: Shielded from noise-producing activities and functions.
- b.11.2) Support Spaces: The Minimum Unit Area shall be internally subdivided to provide the following support spaces:

TECHNOLOGY EDUCATION INSTRUCTIONAL UNIT SUPPORT SPACES

Grade Level	Support Space Room Name	Minimum Area (Square Feet)	Special Features	
Middle/Junior High Modular Lab	Classroom	625	Provide the classroom area within the lab enclosure	
	Production	150	Provide: one 48"x30"x24" base storage cabinet and one 48"x30"x24" drawer cabinet with plastic laminate countertoview window from Lab; and solenoid-type "kill switch" to a electrical outlets	
	Audio-Visual	150	Provide: one 48"x30"x24" base storage cabinet and one 48"x30"x24" drawer cabinet with plastic laminate countertop; and view window from Lab	
	Darkroom	75	Provide: one 48"x30"x24" base storage cabinet and one 48"x30"x24" drawer cabinet with plastic laminate countertop; sink with hot & cold water; exhaust fan; and revolving darkroom door with rubylith window	

	Office	75	Provide voice and data outlets
	Storage	75	Provide: one 48"x30"x24" base storage cabinet and one 48"x30"x24" drawer cabinet with plastic laminate countertop;
High School Modular Lab	Classroom	625	and 48 LF of 12" deep shelving See Special Features for Middle/Junior High Modular Lab
Modular Lab			

Production	150	
Audio-Visual	150	
Darkroom	75	
Office	75	

	Storage	75	
High School Systems Lab (Production Systems, Communica-tion Systems, Transporta-tion Systems and Biorelated Systems	Classroom	625	Provide the classroom area within the lab enclosure
			Provide: four 48"x30"x24" base storage cabinets and four
	Production	500	48"x30"x24" drawer cabinets with plastic laminate countertops; view window from Lab; and solenoid-type "kill switch" to all electrical outlets

Audio-Visual	150	Provide: one 48"x30"x24" base storage cabinet and one 48"x30"x24" drawer cabinet with plastic laminate countertop; and view window from Lab
Darkroom	150	Provide: two 48"x30"x24" base storage cabinets and two 48"x30"x24" drawer cabinets with plastic laminate countertop; sink with hot & cold water; exhaust fan; and revolving darkroom door with rubylith window
Office	75	Provide voice and data outlets

П	II	 	
	Storage	75	Provide: one 48"x30"x24" base storage cabinet and one 48"x30"x24" drawer cabinet with plastic laminate countertop; and 48 LF of 12" deep shelving
High School Advanced Lab (Computer-Aided Design & Drafting Technology, Electricity/ Electronics Technology, Construction Technology, Manufacturing Technology and Graphic Communica-tions	Classroom	625	Provide the classroom area within the lab enclosure
	requirements	divisions per program based on KDE endations	Provide Special Features per program requirements based on KDE recommendations

	Office	75	Provide voice and data outlets
h 11 2) The Minimum	Storage	75	Provide: one 48"x30"x24" base storage cabinet and one 48"x30"x24" drawer cabinet with plastic laminate countertop; and 48 LF of 12" deep shelving

 $b.11.3)\ The\ \underline{\textit{Minimum Standards}}\ as\ given\ by\ the\ following\ table\ shall\ be\ provided\ in\ each\ Technology\ Education\ Instructional\ Unit:$

MINIMUM TECHNOLOGY EDUCATION INSTRUCTIONAL UNIT STANDARDS

Standard	Minimum

	Support Space	Laboratory
Student Capacity	N.A.	Average = 28 Students; Modular Lab:(14-16) two- student work-stations; Systems Lab: (6-8) four- student work-stations; Advanced Lab: work-stations as required by program
Ceiling Height	8'-8"	10'-0"

Room Dimension	8'-0"	22'-0"
Artificial Illumination	50 footcandles	Two-level with 50 footcandles maximum; reduce veiling effects on CRT screens
Markerboard	N.A.	48 square feet in the Classroom area
Tackboard	N.A.	48 square feet in the Classroom area, with 48 LF of tackstrip distributed as required

Finishes	Low maintenance	Low maintenance
Storage	See b.11.2	Storage space for teaching materials, projects
Technology	at each student station; Powe	(1) teacher station; Data outlets r outlets at each computer and outlet

Equipment				
1 10/04				
Utilities				
Special Features				
b.12. HOME ECONOMICS INSTRUCTIONAL UNITS shall be p	b.12. HOME ECONOMICS INSTRUCTIONAL UNITS shall be provided in accordance with the following table:			
HOME ECONOMICS INSTRUCTIONAL UNITS				

Grade Level	Minimum Unit Area	Unit/Student Ratio
	(Square Feet)	
Elementary	N.A.	N.A.
Middle/Junior High	900	One per program
High	One teacher: 2,400	Per program

Two teachers: 3,000	
Three teachers: 3,600	

 $\hbox{b.12.1)}\,\underline{\hbox{Location:}}\,\hbox{Shielded from noise-producing activities and functions.}$

 $b.12.2) \ \underline{\text{Support Spaces}} : \textbf{The Minimum Unit Area shall be internally subdivided to provide the following support spaces} : \\$

HOME ECONOMICS INSTRUCTIONAL UNIT SUPPORT SPACES

Grade Level	Support Space Room Name	Minimum Area (Square Feet)	Special Features

Middle/Junior High	N.A.	N.A.	N.A.
High	Office	One teacher: 150	Lockable file cabinets
		Two teachers: 200	
		Three teachers: 250	

Storage	150	Cabinets and shelving for the storage of books, instructional materials, audio-visual tapes and equipment, etc.

b.12.3) The Minimum Standards as given by the following table shall be provided in each Home Economics Instructional Unit:

MINIMUM HOME ECONOMICS INSTRUCTIONAL UNIT STANDARDS

Standard	Mini	mum
	Support Space	Instructional Space

Student Capacity	N.A.	28 Students
Ceiling Height	8'-8"	8'-8"
Room Dimension	8'-0"	22'-0"
Artificial Illumination	50 footcandles	50 footcandles

Markerboard	N.A.	48 square feet in the Classroom area
Tackboard	N.A.	48 square feet in the Classroom area, with 48 LF of tackstrip distributed as required
Finishes	Low maintenance	Low maintenance

Storage	See b.12.2
Technology	Voice, data and video outlets at (1) teacher station; Data outlets at
	each student station; Power outlets at each computer and video outlet
	Minimum of (5) Unit Kitchens for the one teacher program; Ranges,
Equipment	microwave ovens, refrigerators, small appliances
Utilities	Hot & cold water at Unit Kitchens; exhaust ventilation at range hoods
	and dryers; electrical outlets along perimeter walls

Special Features	See (a) below	
Totes:		
(a) Programs in Child Development Services shall provide additional space and meet the requirements of the Cabinet for Human Resources Day Care Administrative Regulations.		

 $b.13.\ HEALTH\ SERVICES\ INSTRUCTIONAL\ UNITS\ shall\ be\ provided\ in\ accordance\ with\ the\ following\ table:$

HEALTH SERVICES INSTRUCTIONAL UNITS

Grade Level	Minimum Unit Area (Square Feet)	Unit/Student Ratio
Elementary	N.A.	N.A.

Middle/Junior High	900	One per program
High	1280	One per program

b.13.1) Location: Shielded from noise-producing activities and functions.

 $b.13.2) \ \underline{\text{Support Spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}}$

HEALTH SERVICES INSTRUCTIONAL UNIT SUPPORT SPACES

Grade Level	Support Space Room Name	Minimum Area (Square Feet)	Special Features

All	Storage	150	Lockable storage; shelving

 $b.13.3)\ The\ \underline{\textit{Minimum Standards}}\ as\ given\ by\ the\ following\ table\ shall\ be\ provided\ in\ each\ Health\ Services\ Instructional\ Unit:$

MINIMUM HEALTH SERVICES INSTRUCTIONAL UNIT STANDARDS

Standard	Mini	mum
	Summed Summe	
	Support Space	Instructional Space

Student Capacity	N.A.	15 Students
Ceiling Height	8'-8"	8'-8"
Room Dimension	8'-0"	22'-0"
Artificial Illumination	50 footcandles	50 footcandles

Chalkboard/Markerboard	N.A.	48 square feet
Tackboard	N.A.	48 square feet
Finishes	Low maintenance	Low maintenance
Storage	See	b.13.2
<u> </u>		

Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet
Equipment	Electric bed with mattress, linens and bedside table; Copier, dictating & transcribing machine, audio-visual equipment, projection screen;
	Microwave oven & refrigerator
	Hot & cold water with sink; electric outlets for appliances and audio-
Utilities	visual equipment

Special Features	Library area with book shelving	

 $b. 14.\ VOCATIONAL\ AGRICULTURE\ INSTRUCTIONAL\ UNITS\ shall\ be\ provided\ in\ accordance\ with\ the\ following\ table:$

VOCATIONAL AGRICULTURE INSTRUCTIONAL UNITS

	Minimum Unit Area	
Grade Level		Unit/Student Ratio
	(Square Feet)	
Elementary	N.A.	N.A.

Middle/Junior High	750	1/150
High	One teacher: 3120	1/120
	Two teachers: 3900	
	Three teachers: 4680	

High School	2400	1/120
Horticulture		

 $b.14.1)\,\underline{\text{Location}}.\,\text{On the ground floor with access to an exterior fenced courtyard}.\,\text{Locate greenhouses to take advantage of the sunlight}.$

 $b.14.2) \ \underline{\text{Support Spaces}} : \textbf{The Minimum Unit Area shall be internally subdivided to provide the following support spaces} : \\$

VOCATIONAL AGRICULTURE INSTRUCTIONAL UNIT SUPPORT SPACES

Grade Level	Support Space Room Name	Minimum Area (Square Feet)	Special Features
Middle/Junior High	N.A.	N.A.	N.A.

High School (1 Teacher)	Classroom	750	Hot & cold water at a sink located at teacher's station or resource cabinet
	Agricultural Mechanics Lab	2000	Provide access through a 10' x 10' overhead door to an exterior 2000 SF courtyard enclosed with an 8'-0" high fence with a 10'-0" wide gate located opposite the overhead door for direct
	Office	100	Provide voice, data and power outlets
			Trovide voice, data and power outlets

	Resource Storage	100	Accessible from classroom
	Tresource Storage	100	/ recessible from elassicom
	T 1 0 0 "	470	
	Tools & Supplies	170	Accessible through "Dutch" door
High School	Classroom	2@750=1500	Same as Special Features for 1 Teacher program
(2 Teachers)			
	Agricultural Mechanics Lab	2000	
	Wide fullified Edit		

	Office	130	
	Resource Storage	100	
	Tools & Supplies	170	
High School	Classroom	3@750=2250	Same as Special Features for 1 Teacher program

Agricultural	2000	
Mechanics Lab Office	150	
Resource Storage	100	

	Tools & Supplies	180	
	Tools & Supplies	100	
High School	Classroom	750	Hot & cold water at a sink located at teacher's station or
Horticulture	Classicum	750	resource cabinet
	Agricultural Mechanics Lab	1250	Provide access to an exterior 1250 SF courtyard enclosed with an 8'-0" high chain-link fence
	WICCHAI IICS LAD		arro-o riigira iair-iii ik taree
	Office	100	Drovido voice data and nover suffete
	Onice	100	Provide voice, data and power outlets

	Resource Storage	100	Accessible from classroom
	Tools & Supply	200	Accessible through "Dutch" door
	Greenhouse	1800	Divide into two areas with separate temperature controls: a 600 SF Preparation Area, and a 1200 SF Plant Area; Locate close
			to Agr. Mech. Lab when Horticulture only is offered

Head House	600	May be incorporated into the Agr. Mech. Lab when Horticulture only is offered
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 $b.14.3)\ The\ \underline{\textit{Minimum Standards}}\ as\ given\ by\ the\ following\ table\ shall\ be\ provided\ in\ each\ Vocational\ Agriculture\ Instructional\ Unit:$

MINIMUM VOCATIONAL AGRICULTURE INSTRUCTIONAL UNIT STANDARDS

	<u> </u>	
Standard	Mini	mum
	Support Space	Instructional Space
Student Capacity	N.A.	28 Students

Ceiling Height	8'-8"	8'-8"
Room Dimension	8'-0"	22'-0"
Artificial Illumination	50 footcandles	50 footcandles

Chalkboard/Markerboard	N.A.	48 square feet
Tackboard	N.A.	48 square feet
Finishes	Low maintenance	Low maintenance
Storage	See b.14.2	

Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet
Equipment	
Utilities	
Special Features	

BUSINESS EDUCATION INSTRUCTIONAL UNITS

Grade Level	Minimum Unit Area (Square Feet)	Unit/Student Ratio
Grades 5 & 6	800	Per program
Middle/Junior High	900	Per program

High School Lecture/Computer Lab	1520	1/150

b.15.1) Location: Shielded from noise-producing activities and functions.

 $b.15.2) \ \underline{\text{Support Spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}}$

BUSINESS EDUCATION INSTRUCTIONAL UNIT SUPPORT SPACES

Grade Level	Support Space	Minimum Area (Square Feet)	Special Features
	Room Name	(Square Feet)	·
High School Lecture/ Computer Lab	Teacher Workroom/ Coop Office	180	Provide voice and data outlets; lockable file cabinets for confidential student records

All	Storage	60	Lockable room with shelving for instructional materials

b.15.3) The Minimum Standards as given by the following table shall be provided in each Business Education Instructional Unit:

MINIMUM BUSINESS EDUCATION INSTRUCTIONAL UNIT STANDARDS

Standard	Mini	mum
	Teacher Workroom/Coop Office	Instructional Space

Student Capacity	1	28 Students
Ceiling Height	8'-8"	8'-8"
Room Dimension	10'-0"	22'-0"
Artificial Illumination	50 footcandles	50 footcandles

Chalkboard/Markerboard	N.A.	48 square feet
Tackboard	N.A.	48 square feet
Finishes	Low maintenance	Low maintenance
Storage	See b	245.2

Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Additional data outlets for point of sale terminals and other industry equipment; Power outlets at each computer and video outlet
Equipment	
Utilities	

Special Features	Full length window(s) between classroom and lab(s)	
Notes: (a) Model layouts for program type are available from KDE Division of Secondary Vocational Education.		

 $b.16.\ DEVELOPMENTAL\ OCCUPATIONS\ INSTRUCTIONAL\ UNITS\ shall\ be\ provided\ in\ accordance\ with\ the\ following\ table:$

DEVELOPMENTAL OCCUPATIONS INSTRUCTIONAL UNITS

Grade Level	Minimum Unit Area (Square Feet)	Unit/Student Ratio
Elementary	N.A.	N.A.

Middle/Junior High	N.A.	N.A.
High	1600	One per program

 $\hbox{b.16.1) Location: Shielded from noise-producing activities and functions.}\\$

 $b.16.2) \ \underline{\text{Support Spaces}} : \ \text{The Minimum Unit Area shall be internally subdivided to provide the following support spaces} : \\$

DEVELOPMENTAL OCCUPATIONS INSTRUCTIONAL UNIT SUPPORT SPACES

Grade Level	Support Space Room Name	Minimum Area (Square Feet)	Special Features
High School	Storage	200	Storage for reference
			books & teaching
			materials

b.16.3) The Minimum Standards as given by the following table shall be provided in each Developmental Occupations Instructional Unit:

MINIMUM DEVELOPMENTAL OCCUPATIONS INSTRUCTIONAL UNIT STANDARDS

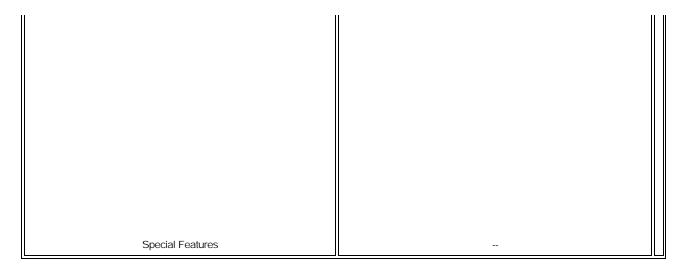
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Standard	Minimum

Student Capacity N.A. 15 - 18 Students Ceiling Height 8-8" 8-8"			Instructional Space
N.A.		Support Space	
N.A.			
	Student Capacity	NΑ	15 - 18 Students
Ceiling Height 8'-8" 8'-8"		140.0	
Celling Height 8'-8" 8'-8"			
Ceiling Height 8'-8" 8'-8"			
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Ceiling Height 8'-8" 8'-8"			
Celling Height 8-8" 8-8"		01.01	01.01
	Ceiling Height	8-8"	8-8"
Room Dimension 8'-0" 32'-0"	Room Dimension	8'-0"	32'-0"

Artificial Illumination	50 footcandles	50 footcandles
Chalkboard/Markerboard	N.A.	48 square feet
Tackboard	N.A.	48 square feet
Finishes	Low maintenance	Low maintenance

Storage	See b.16.2
Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet
Equipment	Provide equipment per program and curriculum requirements based on KDE recommendations
Utilities	Provide handwashing sink



b.17. MARKETING EDUCATION INSTRUCTIONAL UNITS shall be provided in accordance with the following table:

MARKETING EDUCATION INSTRUCTIONAL UNITS

Grade Level	Minimum Unit Area (Square Feet)	Unit/Student Ratio
Middle/Junior High	750	1/150
~		

High School Lecture/Workbased Learning Lab	1600	1/150

 $\hbox{b.17.1)}\,\underline{\hbox{Location}}\hbox{: Shielded from noise-producing activities and functions}.$

 $b.17.2) \ \underline{\text{Support Spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following support spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally subdivided to provide the following spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}} : The \ \underline{\text{Minimum Unit Area shall be internally spaces}}$

MARKETING EDUCATION INSTRUCTIONAL UNIT SUPPORT SPACES

Grade Level	Support Space Room Name	Minimum Area (Square Feet)	Special Features
High School Lecture/ Workbased Lab	Storage	100	Lockable room with shelving for instructional materials

	Teacher/Coop Office	200	Provide voice and data outlets; lockable file cabinets for confidential student records
	Workbased Lab	400	Varies per program

 $b.17.3)\ The\ \underline{\textit{Minimum Standards}}\ as\ given\ by\ the\ following\ table\ shall\ be\ provided\ in\ each\ Marketing\ Education\ Instructional\ Unit:$

MINIMUM MARKETING EDUCATION INSTRUCTIONAL UNIT STANDARDS

Standard	Minimum		

	Classroom	Lecture Lab	Cooperative Office
	Glassiosiii		
Student Canacity	28	28	1
Student Capacity	28	28	
Ceiling Height	8'-8"	8'-8"	8'-8"
Room Dimension	22'-0"	22'-0"	10'-0"

Artificial Illumination	50 footcandles	50 footcandles	50 footcandles
	Solidated	Solisotedinics	so toolcandes
Chalkboard/Markerboard	48 square feet	48 square feet	N.A.
Tackboard	48 square feet	48 square feet	N.A.

Finishes	Low maintenance	Low maintenance	Low maintenance
Storage	Storage for teaching materials	See b.17.2	See b.17.2
Siorage	2.5. ago for todorning materials	3003.17.2	300 5.17.2
Technology	Voice, data and video outlets at (1) teacher station; Data outlet at each student station per KETS Standards; Power outlets at each computer and video outlet	·	Voice, data and video outlets a (1) teacher station
Equipment		Customer service counter; other equipment varies by	

		program	
Utilities			
Special Features	Direct access to Lab	Display windows at entrance to Lab	
Notes: (a) Model layouts for program type are available from KDE Division of Secondary Vocational Education.			
b.18. AUDITORIUMS, when provided, shall have a minimum area based on the student enrollment as given by the following table:			

Seating Capacity

Student Enrollment

Total Auditorium Area

		(Square Feet)
	000	0.500
500	300	3,500
750	350	4,000
1,000	400	4,500

1,250	450	5,000
1,500	500	5,500

b.18.1) Location: On the ground level.

b.18.2) Support Spaces: Internal subdivisions are to be provided as needed.

b.18.3) The $\underline{\text{Minimum Standards}}$ as given by the following table shall be provided in each auditorium unit:

MINIMUM AUDITORIUM STANDARDS

Standard	Minimum

Student Capacity	See Table at b.18.
Ceiling Height	Varies
Room Dimension	Varies
105.7.5.11.5.5.5.1	
Artificial Illumination	Varies

Chalkboard/Markerboard	N.A.
Tackboard	N.A.
Finishes	Low maintenance
Storage	-

	II.
Technology	Voice, data and video outlets at (1) teacher station; Power
realinology	outlets at each computer and video outlet
	· ·
Equipment	
Utilities	

b.19. The ADMINISTRATIVE SUITE, provided in each school, shall be designed to conform to the following standards and shall have a minimum total		
area based on student enrollment as given by the following table	:	
		1
	Minimum Administrative Suite Unit Area	
Total Student Enrollment		
	(Square Feet)	
	(2-1	
2004 500	1700	
300 to 599	1,720	
600 to 899	1,870	

Special Features

900 to 1,199	2,020		
755 16 1,177	2,020		
1,200 to 1,499	2,170		
1,500 +	2,320		
b.19.1) Location: At main entry of the building in a central location on the ground floor.			
b.19.2) Support Spaces: The Minimum Administrative Suite Unit Area shall be internally subdivided to provide the following support spaces:			
ADMINISTRATIVE SUITE SUPPORT SPACES			

Support Space Room Name	Minimum Area (Square Fe d)	Special Features
General Office	200	Includes Receptionist, Waiting; Locate to supervise visitor traffic
Staff Office	150	
Workroom	150	Accessible to the corridor that teachers use; Equip with a base cabinet and sink

First-Aid Room with Toilet	200	Locate off the reception area and within direct view of the receptionist's desk through a half-glass door and sidelight; Equip with a base cabinet with sink; Space for at least one cot; A handicapped accessible toilet room shall be included within the 200 square foot First-Aid Room
		Provide a fire-resistance rating of (2) hours; Must be located
Records Room	150	adjacent to or within easy access of both the guidance and the general offices; Provide file storage space for the maximum anticipated student enrollment at the ratio of one file cabinet per 100 students
Guidance Reception	150	Locate guidance reception in a manner that is accessible to a corridor without direct view to the administrative area housing either the principal or assistant principal; Provide a door between the administrative suite and the guidance suite if

		necessary for student privacy
Guidance Office	150	Provide a minimum of one Guidance Office at each school; For middle, junior and high schools, provide an additional office for each 300 students; Locate the guidance office or suite adjacent to the fireproof records storage
Site Based Office	150	Locate with access from main corridor without passage through the general office area
Site Based Conference	270	Where a conference room is to be provided in the administrative suite, its location should be accessible to both the guidance office/suite and the administration area

Standard	Minimum
Student Capacity	N.A.
Ceiling Height	8'-8"

Room Dimension	N.A.
Artificial Illumination	50 footcandles
Chalkboard/Markerboard	N.A.
Tackboard	24 square feet in Workroom

Finishes	Low maintenance
I II I	Low mail itelialice
Charage	Can Dagarda Dagar akayar Drayida ataraga far affice ayanda
Storage	See Records Room above; Provide storage for office supplies
	Voice and data outlets now the KETC Characterists Days
Technology	Voice and data outlets per the KETS Standards; Power outlets
	at each computer outlet
Fouriers	
Equipment	

Utilities		
Special Features	-	
Notes: (a) Provide an air-conditioning system for all-season occupancy.		
(b) Special attention to sound attenuation is required, provide offi 50, (Doors of STC 34).	ice and conference enclosures with STC-ratings of no less than	
(c) Provide outlets for telephone, computer data and power in al		
b.20. The FAMILY RESOURCE AREA whether provided at a so standards and shall have a minimum total area based on the followed to the standards and shall have a minimum total area based on the followed to the standards and shall have a minimum total area based on the followed to the standards and shall have a minimum total area based on the followed to the standards and shall have a minimum total area based on the followed to the standards are standards and shall have a minimum total area based on the followed to the standards are standards and shall have a minimum total area based on the standards and shall have a minimum total area based on the standards are standards and shall have a minimum total area based on the standards are standards and shall have a minimum total area based on the standards are standards and shall have a minimum total area based on the standards are standards and shall have a minimum total area based on the standards area.	chool site or at a remote location, shall be designed to conform to the following table:	followin
FAMILY RESOURCE AREA UNITS		

Grade Level	Minimum Unit Area	Unit/Student Ratio
	(Square Feet)	
	300	
All	Provide additional area to as required suit the services to be provided	N.A.
b.20.1) Location: Locate outside of the adr	ninistrative suite with access directly from the	e exterior and with consideration given to op

b.20.1) <u>Location</u>: Locate outside of the administrative suite with access directly from the exterior and with consideration given to operation during non-school hours. In elementary schools, consider a location accessible to pre-school classrooms.

b.20.2) <u>Support Spaces</u>: The Minimum Family Resource Area Unit shall be internally subdivided to provide the support spaces required by the services to be offered.

b.20.3) The Minimum Standards as given by the following table shall be provided in each administrative suite:

MINIMUM FAMILY RESOURCE AREA STANDARDS

Standard	Minimum

Student Capacity	N.A.
Ceiling Height	8'-8"
Room Dimension	15'-0"

Artificial Illumination	50 footcandles
Chalkboard/Markerboard	N.A.
Tackboard	N.A.
Lackbodiu	N.A.
Finishes	Low maintenance

Storage	Provide storage for office supplies and lockable file cabinets for
	student/client records
Tooleredom	Voice and data outlets per the KETS Standards; Power outlets
Technology	at each computer outlet
Equipment	
	11
Utilities	

300 to 599	2,200	3,000
600 to 899	3,000	4,600
900 to 1,199	3,800	6,200
1,200 to 1,500	4,700	7,800

b.21.1) Location: On the ground floor.

b.21.2) Support Spaces: The Minimum Kitchen/Cafeteria Unit Area shall be internally subdivided to provide the following support spaces:

KITCHEN/CAFETERIA SUPPORT SPACES

Support Space Room Name	Minimum Area (Square Feet)	Special Features
Manager's Office	64	Provide visual control of the main food preparation area, the delivery door, walk-in freezer/cooler and dry foods storage from the manager's office; Requires a lockable door to secure cafeteria records; Provide telephone and computer data and power outlets, mounted above countertop height.
Staff Toilet	25	Provide an entry vestibule to toilet room containing staff lockers

Dry Food Storage	1/2 SF to 1 SF per student enrollment or the number of	Provide air-conditioning to maintain proper temperatures for year-round use per Federal guidelines
	lunches served	
Non-Food Storage	80	Provide space for a washer and dryer with hot and cold water, 220v electrical outlet and dryer vent, as well as shelving for non-food items; Provide a mop receptor/sink for cleaning the floor

b.21.3) The Minimum Standards as given by the following table shall be provided in each kitchen/cafeteria:

MINIMUM KITCHEN/CAFETERIA STANDARDS

Standard	Minimum

Student Capacity	See Table at b.22
Siddent Capacity	See Table at 0.22
Collins Heigh	101.01
Ceiling Height	10'-0"
Room Dimension	As required
Artificial Illumination	50 footcandles

Chalkboard/Markerboard	N.A.
Tackboard	N.A.
Finishes	Low maintenance, sanitary; Provide non-slip floor surface. (Normal vinyl tile, seamless flooring or concrete must have non-slip texture.)

Storage	
	Voice and data outlets per the KETS Standards; Power outlets
Technology	at each computer outlet
	at each computer outlet
Equipment	Varies according to enrollment and menu choices
Utilities	Where gas is utilized provide flexible connections
Unities	vvi ici e gas is utilized provide liexible col il lectiol is

Special Features		
Notes:		
(a) Provide one serving line for each 300 students.		
(b) Provide an exterior can wash area (or a room accessible to t	he outside) with hot and cold water.	
(c) Provide a service/delivery door annunciator with push button from view window in the manager's office.	at door and buzzer in Kitchen with light located so as to be seen	
(d) Locate the condensers for the walk-in cooler/freezer in a ren for heat dissipation into a well-vented space and easy access for	note non-conditioned space, or outside if properly protected. Allow or maintenance.	
(e) Provide a minimum 5'-0" clear aisle space around or at front preparation items/equipment.	edge of cooking battery, and 4'-0" clear aisles at all other food	
(f) Provide a floor drain for condensation lines at all hot and cold food units and ice makers.		
(g) Provide a floor drain under the draw-off valve at tilting skillet and steam kettle.		
(h) Provide faucet and floor drain at vertical cutter mixer.		
(i) Provide stainless steel or other non-porous countertops or tail	oles for slicers and/or microwaves.	
(j) Provide a Baker's preparation area with mobile bins and cond	liment shelf.	
(k) Provide work stations to suit the number of staff.		
(I) Provide at least one hand sink in the food preparation area.		
b.22. CUSTODIAL RECEIVING room shall be provided in accor	rdance with the following table:	
CUSTODIAL RECEIVING UNITS		

Grade Level	Minimum Unit Area	Units/Student Ratio
	(Square Feet)	
All	250	N.A.

 $\hbox{b.22.1)}\,\underline{\hbox{Location}}\hbox{: On ground floor with direct access from delivery truck loading/unloading area.}\\$

 $\hbox{b.22.2) $\underline{$Support\,Spaces$}$: Internal subdivisions are not required.}$

 $b.22.3) \ The \ \underline{\textit{Minimum Standards}} \ as \ given \ by \ the \ following \ table \ shall \ be \ provided \ in \ each \ Custodial \ Receiving \ unit:$

MINIMUM CUSTODIAL RECEIVING STANDARDS

Standard	Minimum
II .	1

Student Capacity	N.A.
Ceiling Height	8'-8"
<u> </u>	
	21.50
Room Dimension	8'-0"
Artificial Illumination	50 footcandles

	1
Chalkboard/Markerboard	N.A.
Tackboard	N.A.
Finishes	Low maintenance
Storage	Provide shelving for bulk storage of equipment and supplies

	11
	V. III WETC CL. I D. III
Technology	Voice and data outlets per the KETS Standards; Power at the
	data outlet
Equipment	
Ечарнон	
Utilities	Provide floor mop sink

Special Features		
Notes:		
(a) Provide a custodial closet with floor mop sink in each major b	uilding area.	
b.23. MISCELLANEOUS BUILDINGS		
b.23.1 BUS GARAGES shall be provided in accordance with the following table:		
BUS GARAGES		
Number of Bays Required	Minimum Unit Area (Square Feet)	
1	2,400	

2	3,600	
3	4,800	
Each additional bay	1,200	
b.23.2 CENTRAL OFFICE space shall be provided in accordance with the following table:		
CENTRAL OFFICE		

Function	Minimum Unit Area (Square Feet)	
Central Office	1,350 ^a	
Board Room	1,000	
Fireproof Records Storage	150	
Notes:		
(a) Add 200 square feet for each additional professional position in excess of the three listed in the most recent KDE directory.		

 ${\it b.23.3} \ {\it CENTRAL} \ {\it STORAGE} \ {\it FACILITIES} \ {\it shall} \ {\it be} \ {\it provided} \ {\it in} \ {\it accordance} \ {\it with} \ {\it the} \ {\it following} \ {\it table:}$

CENTRAL STORAGE FACILITIES

District Enrollment	Minimum Unit Area (Square Feet)
Less than 1,000	2,500
1,000 - 5,000	5,000

5,000 - 7,500	7,500
Greater than 7,500	10,000

C. UNASSIGNABLE SPACE	C.	UNASSIGNABLE	SPACE:
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- c.1. CIRCULATION
- c.1.1 CORRIDORS:
- c.1.1.1) The minimum width for elementary school main corridors shall be eight (8) feet in the clear.
- c.1.1.2) The minimum width for a middle school, junior high school, or high school main corridor shall be nine (9) feet in the clear.
- c.1.1.3) Corridors shall terminate at an approved egress or at a stairway which leads directly to an approved egress.
- c.1.1.4) Classrooms may be entered from an alcove off the corridor, provided that the alcove is no larger that eight (8) feet wide by six (6) feet deep. In no case shall more than two (2) instructional areas empty into a dead-end corridor or an alcove.
- c.1.1.5) The minimum width of secondary corridors shall be six (6) feet.
- c.1.1.6) The corridor ceiling height shall be a minimum of eight (8) feet in the clear.
- c.1.2 STAIRWAYS:
- c.1.2.1) Stairways used for student circulation to and from instructional spaces shall have a clear distance between handrails of sixty (60) inches. At these stairways, door openings between stairwell and corridor shall have a pair of doors no less than 3'-0" wide per leaf.
- c.1.2.2) Each exterior stairway used as a primary building exit shall be covered and shielded from the weather.
- c.1.3 RAMPS:
- c.1.3.1) Ramps used for student circulation to and from instructional spaces shall have a clear distance between handrails of sixty (60) inches.
- c.1.3.2) Each exterior ramp or paved approach, where the slope is greater than one in twenty (1:20), used as a primary building exit shall be covered and shielded from the weather.

* *

- c.2. GENERAL STORAGE area of no less than 250 square feet for equipment and material storage shall be provided in every school building.
- c.3. TECHNOLOGY: Space for computer network distribution frames shall be provided in accordance with the following table:

DISTRIBUTION FRAME ROOMS

Distribution Frame	Minimum Unit Area	Location
	(Square Feet)	
Campus (CDF)	200	Centralized location between buildings
Main (MDF)	100°	Centralized location within building

Intermediate (IDF)	9 b	Locate to limit cable runs to 245'-0" for		
copper wire, 500'-0" for fiber-optic				
Notes:				
Notes:				
(a) Provide 150 SF when room is to be shared with file servers, computers, telephone switches and equipment racks (PBX's or				
large key system).				
(b) 3'-0"x3'-0" closet with 8'-0" high minimum wall space.				
· / · · · · · · · · · · · · · · · · · ·				

* * *

 $\hbox{c.4. MECHANICAL/ELECTRICAL equipment space shall be provided in accordance with the following table:}\\$

MECHANICAL/ELECTRICAL EQUIPMENT ROOMS

Mechanical/Electrical Function	Minimum Unit Area (Square Feet)	Location _a

Main Mechanical/ Electrical Room	1% of Total area of building or addition ^b	Centrally located to reduce service runs
Electrical Power Distribution Closets	20	Provide one in each main area of the building
Telephone Head-end Equipment	20	Centrally located in building

Telephone Sub-panel Equipment	Integrated into Technology/Computer Network	
	See Table at c.3.	
Technology		
(Carron tan Natural)	See Table at c.3.	
(Computer Network)	JL	Ë
Notes:		
(a) Shield all instructional spaces from the pot	tential hazards of explosion, chemical contamination, etc.	
(b) Provide for a minimum 30" clear aisle alon	g each side of every major mechanical equipment item where maintenance may be required.	
Additional clearance shall be provided where	recommended by the equipment manufacturer for component removal or replacement.	I

PART 3. GENERAL CONSTRUCTION REQUIREMENTS: Construction details shall conform to the following:

- a. ROOF CONSTRUCTION and DETAILS: Roof framing shall slope a minimum of 1//4" per foot for positive drainage; tapered insulation is not acceptable as the only means of positive slope.
- a.1) All roofing systems shall be unconditionally warranted for a period of two (2) years by the roofing manufacturer and by the applicator from the date of final inspection and acceptance of the project.
- a.2) Walkways pads or boards, with a minimum width of twentytwo (22) inches, shall be provided on the roof, from the roof access point to and around each piece of major mechanical and electrical equipment.
- b. DOORS: Each exit door shall be either recessed or protected by a canopy, except exit doors from individual instructional areas not housing more than fortyfive (45) people. A landing of not less than four (4) feet shall be provided from the door threshold to the first step.
- b.1) Each door to an instructional area shall be at least three (3) feet by six (6) feet and eight (8) inches. No other door, or single leaf of a pair of doors shall be less than two (2) feet and ten (10) inches in width.
- b.2) Each door swinging into a corridor shall swing through 180 degrees or be recessed so it does not project into the minimum width of the corridor.
- b.3) In each room where there is a chance of panic by explosion such as a chemistry room, shops, etc., and in each room that houses more than fifty (50) people, such as a library, cafeteria, etc., each exit door shall swing out.
- $b.4) \ Any \ door \ to \ the \ exterior \ must \ exit \ onto \ a \ minimum \ 5' \ x \ 5' \ concrete \ landing \ with \ no \ change \ in \ elevation \ from \ the \ threshold \ to \ the \ pad.$

- b.5) At each Main Mechanical/Electrical Room, provide a minimum 6'-0" x 6'-0" access door or removable panel for the movement of mechanical or electrical equipment.
- b.6) Each door into a Pre-school classroom shall be fitted with a glass view panel, a minimum 6" clear in width and extending from 10" above the floor to within 5" of the top of the door. This view panel may be divided horizontally at its center to accommodate hardware. The opening shall be centered or located toward the lockset side of the door.
- c. WINDOWS: Windows shall be provided in each instructional space located on an exterior wall with the exception of: computer labs, band rooms and gymnasiums (windows may be provided in these spaces if desired).
- c.1) Where windows are installed in an instructional space: a.) the minimum area of total window opening for each space shall be 36 square feet; and b.) an area of operable sash shall be required in an amount equal to 2% of the net floor area. Standard Art Classrooms shall have minimum area of total window opening equal to 72 square feet.
- c.2) Each exterior window shall be double glazed or provided with insulating glass. Window frames shall be thermally-broken.
- c.3) Operable sections of windows shall be no higher than sixty (60) inches.
- c.4) Clerestory windows or skylights shall be prohibited in all instructional spaces with the exception of Art and Biology Classrooms where an exemption to 702 KAR 4:170 shall require the approval of the Director of the Division of Facilities Management.
- c.5) The height of a window sash or frame shall be a minimum of thirty (30) inches above the finished floor.
- c.6) Window glass openings higher than 8'-8" above the finished floor shall be prohibited in all instructional spaces with the exception of the Library/Media Center and the Middle/High School Art Classroom where an exemption to this requirement shall require the approval of the Director of the Division of Facilities Management.
- c.7) Glass block shall be prohibited in all instructional spaces with the exception of the Library/Media Center where an exemption to this requirement shall require the approval of the Director of the Division of Facilities Management.
- c.8) In instructional spaces where video, slide or film presentations occur, shades, blinds or other daylight- control devices shall be provided on all windows.
- d. MATERIALS/FINISHES: The materials and finishes used in the construction of school facilities shall provide low maintenance, maximum life-cycle service, at a unit cost within the budget established for the project.
- d.1) The composite construction of the exterior wall section shall meet a minimum 30-year life cycle .
- d.2) The finish materials provided in instructional spaces shall have light reflectance values equal to: 80% for ceilings; 50% for walls; and 20% for floors.
- e. ENERGY CONSERVATION: Energy conservation requirements shall conform to the provisions of the Kentucky Building Code.
- f. TECHNOLOGY: The provision of the integrated communication network, including voice, data and video wiring and devices shall conform to the Kentucky Education Technology System "Building Wiring Standards", of the Kentucky Department of Education. In general, provide for the following minimum standards: one video, one voice and one data port at the teacher's station in each classroom; one data line for every six (6) students in each regular classroom; two (2) data lines for administrative use in each school; and four (4) data lines for the school district office use.
- g. PLUMBING DESIGN: All plumbing shall conform to the requirements of the Kentucky plumbing code, incorporated in the Kentucky Building Code, in effect at the time of approval of the plans or changes thereto, and installation must be approved by authorities having jurisdiction prior to acceptance of the project.

- g.1) The sewage disposal plant, where required on school property, shall be remotely located from all developed areas. Natural or artificial screening shall be provided for the disposal unit.
- g.2) Hose bibs in toilet rooms with more than one water closet and one lavatory, shall be a minimum of eighteen (18) inches above floor and key-operated.
- g.3) In schools where chemicals are utilized in science laboratories, provide an acid dilution pit in the building sewer.
- g.4) Provide a grease trap outside the kitchen.
- g.5) School buildings of six (6) classrooms or more shall be provided with two (2) exterior freezeproof hose bibs. One hose bib should be located near the main entry.
- g.6) A custodial floor mop sink and shelving shall be provided, in a custodial work room, on each floor level of the building.
- g.7) Hot and cold water hydrants shall be provided at the can wash outside the Kitchen.
- g.8) In middle, junior or high school training rooms, provide a floor drain and water connections for a whirlpool. Locate to allow access to whirlpool from three sides.
- h. HEATING, VENTILATING & AIR-CONDITIONING DESIGN: The mechanical room shall be planned to permit repair and replacement of equipment, satisfactory cleaning and care, and provide for combustion air. The mechanical equipment shall be remote from the instructional areas and shall be sufficiently soundproofed so that its operation will not disturb instruction in the classrooms. Plans for new construction and renovation shall provide that the boiler and its related equipment shall not be located directly over, under or adjacent to an instructional area.
- h.1) Where the roof areas are being used to house major mechanical and electrical components, a set of stairs or ships ladder shall be provided.
- h.2) The heating system shall be of ample capacity and so installed as to insure uniform temperature of seventy (70) degrees being maintained in all occupied rooms when the outside temperature is zero. The air conditioning system shall be of ample capacity and so installed as to insure uniform temperature of seventyfive (75) degrees, fifty (50) percent relative humidity being maintained in all occupied rooms when outside temperature is ninetyfive (95) degrees db, seventyeight (78) degrees wb.
- h.3) Mechanical heating, ventilating and air-conditioning shall be provided in all new schools and in additions to existing schools. An exemption may be granted from air-conditioning mechanical rooms, shop areas, storage rooms and shower/locker rooms.
- h.4) Mechanical systems shall be provided with accessible filters and individual room temperature control. Air shall be introduced in such a manner as not to produce drafts.
- h.5) All instructional spaces shall have individual thermostatic control.
- h.6) Provide tamper-proof thermostats or lockable covers on all thermostats in public areas and instructional spaces.
- h.7) All janitor's closets are to be mechanically exhausted.
- h.8) Provide a ducted exhaust register from the shower room and drying area.
- h.9) "Gang" toilet rooms, shower rooms and locker rooms in a school building shall be mechanically exhausted. Exhaust registers shall be located at or in the ceiling of each area and exhausted directly to the outside. Exhaust ducts serving rooms for opposite sexes shall not be connected to a common exhaust duct unless adequate sound proofing is provided.
- i. ELECTRICAL DESIGN: All electrical work shall conform to the requirements of the Kentucky Building Code.

- i.1) Artificial illumination shall be provided in all instructional spaces at a minimum average "maintained" value of titty (50) footcandles, (30) inches above the floor.
- i.2) Artificial illumination shall be provided in all stairways and corridors at a minimum average "maintained" value of twenty (20) footcandles, (30) inches above the floor.
- i.3) The design engineer shall address electrical power surge protection of all computer, telephone and video equipment items. Utilize protection devices in coordination with and as directed by the Owner.
- i.4) Light switches in shower and toilet rooms shall be key-operated and remotely located from wet areas.
- i.5) Each classroom shall be provided with a minimum of: two (2) duplex convenience outlets located remote from each other; one telephone outlet; and one duplex outlet and one data outlet at each computer station. For ETV power supply, provide one (1) outlet located not less than fortyeight (48) inches nor more than sixty (60) inches above the floor at the end of a chalkboard remote from the entrance to the classroom. Power outlets or connections flush with the floor or countertop are prohibited.
- i.6) A minimum of one duplex outlet is required in each habitable space. A convenience outlet shall be provided at each drinking fountain location.
- i.7) Each corridor shall be provided with grounded convenience outlets of such capacity and at such intervals to accommodate floor cleaning machines in corridors and classrooms.
- i.8) Gymnasium lighting shall be key-switch operated or the switch shall be under lockable cover.
- i.9) Four HID light fixtures in the gymnasium shall be equipped with quartz re-strike switching to provide limited illumination to access other parts of the gymnasium.
- i.10) Provide a weatherproof power outlet at each main exit.
- i.11) Provide telephone, and computer data and power outlets for each office space.
- i.12) No light switch shall be located in a shower room where floor might be wet. Shower room lights shall be switched with locker room lights.
- i.13) In athletic training rooms where a whirlpool will be installed, a GFI outlet with a remote switch is required for power to the whirlpool. Locate the remote switch in the coach's office with a clear view of the whirlpool, or under lockable cover a minimum distance of 6'-0" from the whirlpool.
- i.14) Provide ETV outlets in all instructional spaces including special education, library, gymnasium, music room, art room, band room, and cafeteria. ETV head-end equipment should be located in the library Audio-visual Storage, or its equivalent, with appropriate means to distribute video presentations throughout the building.
- i.15) If HID lighting fixtures are used in any instructional space, the lamps shall be limited to 250 watt maximum with a quartz re-strike on a dimmer for each fixture.
- PART 4. EXISTING BUILDINGS: Existing buildings remodeled for instructional purposes shall insofar as practical, meet the requirements of new spaces that would be used for the same purposes. The proposed net area of any assignable space must meet or exceed 67% of the Minimum Unit Area required for that space by this regulation. Limited exemptions to this requirement shall be approved by the Director of the Division of Facilities Management prior to the issuance of the approval to advertise for bids for the project.
- PART 5. TEMPORARY OR SUPPLEMENTAL UNITS: The following minimum standards relate to the provision of emergency classrooms and temporary instructional units.
- a. Relocatable classrooms which can be moved and assembled into instructional units on the school site shall be approved in writing on a year to year basis subject to the following:

- a.1) The minimum floor area of a relocatable classroom shall be as required in permanent school building construction except that temporary units less than twentytwo (22) feet wide may be approved for use when new construction is planned to eliminate the use of the units within a two (2) year period of time. Approval shall allow these units to remain on the site for no more than twentyfour (24) months. The approval shall be granted only after an on-site visit by a Department of Education employee to determine the adequacy of the site.
- a.2) The minimum heating, artificial lighting and ventilation standards shall be the same as for permanent construction.
- a.3) The minimum ceiling height shall be seven (7) feet and ten (10) inches at the lowest point.
- a.4) The minimum floor load shall be fifty (50) pounds per square foot live load.
- a.5) All units shall be securely anchored to withstand a wind of seventyfive (75) miles per hour.
- a.6) Steps with landings and handrails shall be provided for all exit doors. A ramp serving at least one (1) entry shall be provided.
- a.7) Each classroom shall be provided with two (2) doors, remote from each other.
- a.8) Chalkboard and tackboard, a minimum of fortyeight (48) square feet of each, shall be provided.
- b. A school district may acquire a relocatable unit using either of the two methods listed:
- b.1) A Kentucky registered architect or engineer may be hired to prepare plans and specifications for bidding purposes. Such plans shall be reviewed and approved by the Kentucky Department of Education prior to advertisement for bids.
- b.2) The local board may develop performance specifications for bidding purposes. Performance specifications shall be approved by the Kentucky Department of Education and provide the following:
- b.2.1) A plot plan of the existing school which shows all boundaries, buildings, walks, drives, and other developments and the proposed location of the unit. When applicable, electrical service lines to the units and water and sewage lines shall be shown on the plot plan.
- b.2.2) Specifications that each bidder shall provide units that meet all of the administrative regulations of the State Board for Elementary and Secondary Education, and applicable administrative regulations of the Department of Housing, Buildings and Construction. The specifications shall also require each bidder to submit with the bid, a copy of the plans and specifications bearing the seal of a Kentucky registered architect, of the unit being bid. The specifications shall require the successful bidder to submit a copy of the plans, bearing the seal of a Kentucky registered architect or engineer, to the Department of Housing, Buildings and Construction and Department of Education.
- c. The successful contractor shall furnish the local board of education certification of completion on forms provided by the State Board for Elementary and Secondary Education as part of 702 KAR 4:160 and incorporated here by reference. The local board of education shall approve the form and forward to the chief state school officer a completed copy or a letter stating why the board does not agree that the construction is substantially completed. The chief state school officer or his designee shall make a final inspection of the project following receipt of the required State Board for Elementary and Secondary Education form.
- d.) Following the final inspection, a written statement of completion or a list of items to be completed, shall be given to the local board of education with a copy to the contractor. Written authorization for full payment of the contract shall be given when the project is completed in accord with the plans and specifications.

PART 6. WAIVERS: The chief state school officer shall be authorized to waive any of the foregoing requirements upon the written request (by Board Order submitted by the local board) for good cause, provided it is shown in writing that such a waiver does not constitute a violation of any other agency having jurisdiction.